

## Letter from Arthur W. McCurdy to Alexander Graham Bell, September 10, 1899

1331 CONNECTICUT AVENUE, WASHINGTON, D. C. Sept. 10th. 1899. Dear Mr. Bell:—

After being invited to place the original models of my apparatus in the National Museum I think it is time to tell you some thing of my progress during the last few days.

In order to be more explicit I will go a little into detail.

My original idea was to make an apparatus to develop plates in daylight. That was successful.

Next I took up films, and after your departure for Japan I spent a good deal of time on an apparatus for this purpose succeeding in demonstrating that films could be developed in daylight.

My next step was to show that photographs could be taken on films made up in cartridge form with black paper along the whole length and beyond each end (the usual form of cartridge) and developed in my apparatus without the use of a dark room.

The next step was to make a cartridge having black paper at each end only, load the camera in the usual cartridge way, take the photographs unload in daylight and develop in my apparatus without the use of a dark room.

I next used “white” paper ends in making up a cartridge, loaded the camera in the usual way and developed without the use of a dark room. I showed you some of these “white” cartridges at Northampton.

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My last step has been to discard paper altogether, and I have found by actual experiment that by extending the film beyond the part on which pictures are to be taken a distance of from fifteen to twenty four inches this extended portion renders the cartridge as safe as if the extension were black paper.

My "white" cartridge was a surprise, and Mr. Littlewood the Examiner stated that heretofore "black paper has been deemed essential". Prof. McGee witnessed the development of a "white" cartridge in your dining room here on Wednesday the 6th. instant. The development took place between four and five P.M. The next morning he told Mr. Gill, and Mr. Hillers, and they were surprised. When I developed a cartridge which had been loaded unloaded placed in developer as in daylight, but developed in the Bureau dark room because the film was too short to be developed in my apparatus (Mr. Gill who was present with me said "Well I'll be darned". I supposed such an eminent man would have quoted from Shakespere, but he was evidently too excited 2 to remember his Shakespeare.

Mr. Dodge was kind enough to inform me that when he first saw my brass model he did not believe in it, nor indeed for a long time afterwards, but now he would believe ANYTHING I would tell him about photographic art. I only wish that he had believed long ago, and perhaps I might not have had such hard work with the Examiner.

I took a "white" cartridge together with the McGee cartridge developed on the 6th. instant to Mr. Littlewoods office on the 7th. instant and showed them both to him. Then loaded the "white" cartridge as if it were a "black" one (the gentlemen smiling in a doubting manner) and had Mr. Pitman and Mr. Littlewood each take a photograph out of their office window looking into the court of the Patent Office, and made an appointment with them to be present here on Friday at 3 P.M. to see the cartridge taken out of the camera and developed. Mr. Gill, and Mr. Hillers and I all, took photos, on this film. Two exposures were left so that they could be taken here when the gentlemen arrived.

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Mr. Hillers came first, then Prof. McGee, then Mr. Little wood, Mr. Delano, Mr. Pitman and finally Mr. Gill. We took the two exposures. One of the apparatus on the table, and one snap shot out of the window.

The "white" cartridge was then taken out in the presence of all in your dining room, and placed in the developing apparatus. The developer which had been used once before was poured on and in two minutes all twelve exposures were declared by me "finished" but out of deference to a statement by Mr. Delano that it should take at least ten minutes I left the film in one minute longer and then declared it must come out. The film was washed and fixed and washed again and then drawn out of the apparatus a great success. Prof. McGee acted a Secretary for the occasion and says in his notes "the film was found developed in a fairly satisfactory way" &c. I suppose as far as a scientific man could go on a wet film. The next morning I took the dry film down town and found the matter had grown over night It was then I think that Prof. Holmes asked me to remember the National Museum and be sure to let them have the models. Mr. McGee wants me to fit up an apparatus right away for one of his men who is going into the field in about two weeks.

I have ordered six to be made immediately, and will give him one of those or the one I have here.

The weight of the apparatus ready to work is three pounds and four ounces.

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Mr. W. Kerr (of Bell & Co) told me that his friend the Washington correspondent of the New York Sun wanted to see my apparatus, but I told him for goodness sake to say nothing about it until my patents were further advanced, for I am of the opinion that publication here would interfere with patents in foreign countries. What do you think about it?

I have four applications now in the Patent Office:—

1. Application for apparatus.

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2. do for process.
3. do automatic register.
4. do film cartridge.

It will probably cost from five hundred to eight hundred dollars for the foreign patents alone.

I have not yet made arrangements for the manufacture of the brass register, or the metal parts of the developer. This will cost money and I am at the end of mine. Were Mr. Charles Bell here I suppose I could arrange matters with him, but he wont be home until the last of this month, and many things may happen in the mean time. I do not want to get into the power of business men of whom I know nothing if there is any other way by which money can be raised to place the foreign patents and get contracts for the register and metal parts of the box. A small ready sale would develop immediately, and by that time the system would have so much gratuitous advertising I would be in a position to listen to business propositions.

I presume that Dodge would accept a part on account for foreign patents, and my intention was to borrow a thousand dollars from Bell & Co to carry matters on to a successful issue, but as Mr. Charles Bell is not at home. I don't care to broach the matter.

I have not asked you to help me, because I felt you had no faith in the invention. In this however I may have been mistaken, and as had no difficulty in creating the results themselves have created enthusiasm among a few of the scientific men who have seen the apparatus work you too might believe in it if you saw it in operation.

The new cartridge alone will mark an advance in photography, and with the daylight developer will arouse considerable interest.

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I regret to be away from my regular work so long, but am quite sure you agree with me that it would not be wise to go north until things are brought to a focus, and I have a check to my credit.

Very sincerely yours, Arthur W McCurdy